IN THE UNITED STATES PATENT & TRADEMARK OFFICE

In re application of Derossett et al.	)	Group Art Unit: 1725
Application No.: 10/625,783	)	Examiner: M. Alexandra Elve
Filed: July 23, 2003	)	
For: METHOD AND APPARATUS FOR LASER INSCRIPTION OF AN IMAGE ON A SURFACE	)	

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 2231301459

Sir:

This is an appeal from the final rejection by the Examiner dated March 24, 2006 rejecting claims 1-6, all the claims pending in the case. Pursuant to 37 C.F.R. § 1.192 and MPEP § 1206, the following brief is submitted in triplicate, a Notice of Appeal having been filed on June 21, 2006 for the above-identified application on behalf of the inventors, Thomas Derossett, Jr. and Timothy Miller.

I Real Party in Interest

The real parties in interest are the inventors, Thomas Derossett, Jr. and Timothy Miller.

II Related Claims and Interferences

This application was the subject of a pre-appeal brief review request for which was filed concurrently with the Notice of Appeal. The decision by the Examiner Panel is included in the

Appendix. Appellants are aware of no other pending appeals or interferences that will directly affect, be directly affected by, or have a bearing on the Board's decision in the present appeal.

III Status of Claims

The application was filed on July 23, 2003 with 7 claims of which claim 1 was an independent claim. All the claims were rejected on September 22, 2005 .

In applicants' response claim 1 and claim 6 were amended and claim 7 was canceled. In addition page 5 of the specification was amended. A Notice of Non-compliant Amendment dated December 23, 2005 was issued requiring applicants to change the label of claim 1 and claim 6 from AMENDED to CURRENTLY AMENDED . A response dated January 5, 2006 making the requested changes was submitted.

The Examiner in the next Office Action dated March 24, 2006 made a final rejection of claims 1-6 and objected to the amendments to page 5 of the specification as containing new matter.

The status of the claims as amended is as follows:

Allowed claims – none

Claims objected to – none

Claims rejected – 1-6

IV Status of Amendments

Applicants' amendment of the specification filed January 5, 2006 is objected to as introducing new matter. The proposed amendments are set out in the Appendix.

The amendments to claim 1 and claim 6 have been entered. The claims as set out in the appendix include the entered amandments.

V Summary of Invention

This invention relates apparatus for the laser etching of indicia on a surface, such as VIN numbers on automobile windows. The invention relates to an emitter/marking head apparatus 10 (FIG. 1 and 2) where the marking head 14 is affixed to the emitter housing 12 so that the laser beam passes from the laser in the emitter housing 12 to the beam control apparatus in the marking head through a short optical path. Unlike the prior art devices where the marking head 14 and emitter source are spaced apart requiring a relatively long optical path,. the optical path in the apparatus 10 of the present invention is short. Conventionally the marking head 14 needs to be relatively freely movable so that indicia can be scribed at various locations on a surface. For this reason the optical path is flexible to allow a wide range of movement for the marking head. Accordingly, the elongated optical path is conventionally provided by some form of optical fiber or by an articulated arm to provide the necessary flexibility for the marking head. The elongated optical path results in loss of beam intensity as it travels along the path and accordingly requires higher energy to produce a beam of the desired intensity to the site being scribed. Articulated arms have the added disadvantage of requiring a substantial amount of adjustment, especially when replacing a laser, to obtain and maintain a maximum optical path.

More particularly, described on page 6, beginning at line 16 and illustrated in FIGS. 1 and 2, the invention relates to an emitter/marking head apparatus 10 where the marking head 14 is pivotally affixed to mounting face 18 of the emitter housing 12 by means of a pivot joint 15 that is provided with a port 24 (FIG. 3) to permit a laser beam to pass from the laser in the

emitter housing 12 to the beam control apparatus in the marking head. As described on page 7 beginning at line 14, the pivot joint 15 comprises a cylindrical extension 16 formed on a side wall of the marking head 14 that is received in a corresponding opening 17 (FIG. 3) in the wall of the emitter housing 12. As shown in FIG. 4 the bore of the cylindrical extension 16 defines a through running passage 24 that is aligned with an opening 26 in the wall of the marking head 14 to provide a short optical path from the emitter housing 12 to the beam directing apparatus and lens of the marking head.

The apparatus 10 (emitter housing and marking head assembly) are normally supported by a swing arm to allow the apparatus 10 to be positioned adjacent a surface to be scribed while the pivot joint 15 permits finer adjustment of the marking head 14 with respect to the emitter housing 12. The laser beam passes directly from the emitter housing to an alignment mirror where it is directed through the bore of the cylindrical extension 16 into the beam directing apparatus and lens in the marking head. In this manner the requirement for, and the disadvantages of, an intervening device such as an articulated arm to provide an elongated optical path is eliminated.

VI Issues

A. The Examiner has objected to the proposed amendment to page 5 of the specification 35 U.S.C § 132 as introducing new matter.

B. The Examiner has rejected claims 1-6 as unpatentable under 35 U.S.C. § 102 as being anticipated by Drouillard et al. (US Patent 5,897,797). It is the Examiner's position that Drouillard et al. shows an articulated arm that provides a flexible link between the main cabinet and the remote scanning head. Applicants do not contest this reading of the reference. The issue

is how or why this applies to applicants' invention where the object is to eliminate articulated arms and long optical paths.

(VII) Grouping of Claims

As the rejection is applied to claims 1-6, it is applicants' intention that the claims stand or fall together.

(VIII) ARGUMENT

A. The Examiner has objected to the proposed amendment to page 5 of the specification 35 U.S.C § 132 as introducing new matter.

The amendments to the specification are to make clear that the emitter housing and the marking head of applicants device are directly attached and are operated as a single unit. This is in contrast to the prior art devices in which the emitter housing and consequently the laser source is remotely located with respect to the marking head and are optically in communication through an elongated light path , such as an articulated arm. The direct attachment is illustrated in FIG. 1 and 2. The cylindrical extension forming the pivot joint is an extension of the side wall of the marking head. Since this has been shown from the time the application was filed it cannot be considered new matter to describe the attachment of the emitter housing and marking head as being directly attached as compared to the indirect attachment of the units by an articulated arm or similar device made necessary by the remote location of the units with respect to one another as taught by the prior art.

Accordingly, it is submitted that the Examiner's objection to the amendments proposed for the specification is without basis and should be withdrawn.

B. The Examiner claims 1-6 as unpatentable under 35 U.S.C. § 102 as being anticipated by Drouillard et al. (US Patent 5,897,797).

Droulliard et al. discloses a laser marking device in which the emitter (laser) is remote from the marking head. An articulated arm inter connects the remote emitter to the marking head. The two units are not directly pivotally attached. The articulated arm provides an elongated optical path with the attendant deficiencies associated with articulated arms, especially the need for constant adjustment to maintain the optical path.

Because there is no teaching of the direct attachment of the emitter housing and marking head Drouillard et al. does not provide the elements of applicants' etching apparatus arranged as claimed by applicants. To properly constitute an anticipatory reference, the reference must teach the elements arranged as in the claims. *Lindermann Machinenfabrick GmbH v. American Hoist and Derrick Company*, 730 F. 2d 1452, 221 USPQ 481, 485 (Fed. Cir. 1984). Thus, even if the reference contains the same elements it does not anticipate if they are not arranged as claimed.

Applicants' device by directly attaching the emitter housing in which the laser source is located to the marking head provides an improved laser marking system with a short optical path that requires no adjustment once the units are directly attached to one another. The advantages of the short optical path, the elimination of the articulated arm of Drouillard et al. and the relative ease in replacing the marking head as required provide substantial savings

It is submitted that the rejection under 35 U.S.C. § 102 (b) as anticipated by Drouillard et al. is not supported in fact or in law and should be overturned.

IX CONCLUSION

In view of the foregoing it is submitted that the objection to the amendments to the specification do not constitute new matter and are entitled to be entered in the file of this

application. The rejection of the claims is improper as the reference relied upon fails to anticipate the invention.

It is respectfully requested that the board reverse the Examiner rejection of the claims and order the amendments to the specification be entered.

Date: December 19, 2005

Respectfully Submitted,
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APPENDIX

Applicants' proposed amendments to the specification of January 5, 2006 and set forth herein have been objected to b the Examiner.

In the Specification

Amend the paragraph beginning on page 4, line 26 and ending on page 5, line 8 as follows:

The apparatus utilized to carry out the foregoing method comprises an assembly that includes an emitter housing in which the laser emission source is located. A marking head is pivotally affixed directly to the emitter housing and electronically and optically communicates therewith. Beam directing apparatus in the marking head is electronically connected to a controller to receive and process the signals for controlling the beam directing apparatus to move the laser beam over the surface to etch the desired pattern. Preferably, the marking head is provided with one or more suction devices for securing the marking head in proper alignment and spacing with the surface being etched and interlocks are provided to prevent the firing of the laser until the marking head is correctly positioned with respect to the surface to be etched.

Amend the second full paragraph on page 5 beginning at line 11 as follows:

While the emitter housing and marking head of the emitter/marking head assembly are separate units, the marking head is immediately adjacent to the laser source to shorten the optical path for the laser beam. The marking head is pivotally carried by the emitter housing for pivoting movement in relation to the emitter housing. The marking head may be mounted on either sidewall or the top or bottom wall of the emitter housing.

The claims that follow are claims pending in the application and contain amendments made on January 5, 2006.

1. In a system for inscribing a pattern on a surface, said system comprising an emitter housing including a laser for generating a high energy emission beam, a system controller for entering data representing the pattern to inscribed on the surface and for converting said data to control signals and beam direction apparatus for controllably directing said emission beam responsive to the control signals from said system controller and power circuitry connecting said laser and said beam direction means to a source of power, the improvement comprising an emitter/marking head assembly, said assembly comprising :

an emitter housing defining an interior comprising top, bottom, side and end walls, said housing containing a laser source for producing a high intensity beam disposed in said interior of said emitter housing;

a marking head comprising a housing defined by top, bottom, side and end walls, said walls defining an interior, said marking head being pivotally joined to a wall of said emitter housing by a pivot joint, said pivot joint including a through running passage for optical communication between said interior of said emitter housing and said interior of said marking head, said interior of said marking head electronically communicating with said emitter housing and with said system controller, one of said end walls defining an emission face of said marking head and having an emission port for the passage of the high intensity beam there through, said interior of said housing including beam directing apparatus for moving the high energy beam in a defined pattern on a surface being etched responsive to signals from said system controller and said housing further including a lens for focusing said high intensity beam;

an optical path from said laser source to said emitter port of said marking head being defined by an alignment mirror in said emission housing, said through-running passage in said pivot joint, said beam directing apparatus and said lens in said marking head;

circuit means electrically connecting said system controller, said marking head and said laser source.

2. The system of claim 1 wherein said pivot joint comprises a cylindrical extension from a wall of said housing of said marking head, said cylindrical extension is journaled in a corresponding opening a wall of said emitter housing , a through running passage in said cylindrical extension is aligned with a corresponding passage in said wall of said marking head to define a portion of said optical path for said high intensity beam to traverse from said emitter housing to said beam directing apparatus of said marking head.

3. The system of claim 1 wherein said marking head is pivotally mounted on a sidewall of said emitter housing.

4. The system of claim 1 wherein a portion of one side wall of said emitter housing adjacent said front wall defines a mounting face that is biased forwardly inwardly with respect to the longitudinal axis of said emitter housing and said marking head is pivotally mounted thereon.

5. The system of claim 1 wherein said emission face further includes a pair of interlocks, each of which include a spring loaded pin to break the circuit to the laser and prevent the laser from firing unless the pins are fully retracted.

6. The system of claim 1 including a pair of suction cups carried on said emission face said marking head, a suction chamber in said marking head communicating with said suction cups and with a vacuum line for reducing pressure in said suction chamber for drawing the emission face against the surface being etched.

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10/625,783	07/23/2003	Thomas DeRossett JR.	DRV/00106	8187

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Please find below and/or attached an Office communication concerning this application or proceeding.

Application Number	Application/Control No.	Applicant(s)/Patent under Reexamination	
	10/625,783	DEROSSETT ET AL.	
	Elve	Art Unit 1725	

Document Code - AP.PRE.DEC

Notice of Panel Decision from Pre-Appeal Brief Review

This is in response to the Pre-Appeal Brief Request for Review filed 6/21/06.

1. ☐ **Improper Request** – The Request is improper and a conference will not be held for the following reason(s):

☐ The Notice of Appeal has not been filed concurrent with the Pre-Appeal Brief Request.
☐ The request does not include reasons why a review is appropriate.
☐ A proposed amendment is included with the Pre-Appeal Brief request.
☐ Other:

The time period for filing a response continues to run from the receipt date of the Notice of Appeal or from the mail date of the last Office communication, if no Notice of Appeal has been received.

2. ☒ **Proceed to Board of Patent Appeals and Interferences** – A Pre-Appeal Brief conference has been held. The application remains under appeal because there is at least one actual issue for appeal. Applicant is required to submit an appeal brief in accordance with 37 CFR 41.37. The time period for filing an appeal brief will be reset to be one month from mailing this decision, or the balance of the two-month time period running from the receipt of the notice of appeal, whichever is greater. Further, the time period for filing of the appeal brief is extendible under 37 CFR 1.136 based upon the mail date of this decision or the receipt date of the notice of appeal, as applicable.

☒ The panel has determined the status of the claim(s) is as follows:
Claim(s) allowed: ____.
Claim(s) objected to: ____.
Claim(s) rejected: *1-6*.
Claim(s) withdrawn from consideration: ____.

3. ☐ **Allowable application** – A conference has been held. The rejection is withdrawn and a Notice of Allowance will be mailed. Prosecution on the merits remains closed. No further action is required by applicant at this time.

4. ☐ **Reopen Prosecution** – A conference has been held. The rejection is withdrawn and a new Office action will be mailed. No further action is required by applicant at this time.

All participants:

(1) *M. Alexandra Elve*. (3) *William Krynski*.

(2) *Patrick Ryan*. (4)____.